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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,802	12/12/2003	David M. Chess	YOR920030570US1	3904

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EXAMINER	
TURCHEN, JAMES R	
ART UNIT	PAPER NUMBER
2139	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/734,802	CHESS ET AL.	
	Examiner	Art Unit	
	James Turchen	2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after t he mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 19-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 19-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-17 and 19-30 are pending. Claims 1, 19-23 and 30 are amended. Claim 18 is cancelled.

Response to Arguments

Applicant's arguments, see page 10 section II, filed 06/18/2007, with respect to the rejection(s) of claim(s) 1-30 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Gong.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 are rejected under 35 U.S.C. 102(e) as being anticipated by Gong et al. hereafter Gong (US 7,076,801).

Regarding claims 1, 23, and 30:

Gong discloses a method for automated adaptive reprovisioning of servers under security assault, the method comprising:

detecting a security assault or a possible security assault on a first server (column 6 lines 63-67; intrusion sensors 50 detect signs of attack in the network and its components); and

reprovisioning by automatically creating a new server instance with a desired new server configuration to perform at least one of the tasks performed by said first server, wherein said desired new server configuration for said new server instance is selected from a plurality of new server configurations (column 7 lines 30-43, the adaptive reconfigurer 60 generates new configurations for the system as necessary and may include changing the level of access control, degrees of redundancy or isolation, increased sensitivity, or alerting network components)..

Regarding claims 2 and 24:

Gong discloses the method of claims 1 and 23, wherein said detecting comprises determining if said first server is a candidate for reprovisioning, because of properties or behavior that suggest its security has been compromised or is likely to be compromised, or its functioning otherwise unacceptably impaired, by a security assault (column 7 lines 30-43, the adaptive reconfigurer evaluates any intrusion threats, compares them to the tolerance objectives and any cost or performance impact, and generates new configurations).

Regarding claims 3 and 25:

Gong discloses the method of claims 1 and 23, wherein said reprovisioning comprises automatically bringing up said new server instance, or otherwise making available said new server instance to customers or other users of said first server

(column 7 lines 54-66, functions and resources devoted to nonessential services can be reallocated to the delivery of essential services (creating a new server instance), making users unaware of a degradation).

Regarding claims 4 and 26:

Gong discloses the method of claims 1 and 23, further comprising bringing down said first server prior to said reprovisioning (column 7 lines 37-43, isolation is considered by examiner as bringing down the first server (the server under attack) as the server is no longer available to the clients).

Regarding claims 5 and 27:

Gong discloses the method of claims 1 and 23, wherein said new server instance brought up in said reprovisioning differs from said first server in at least one parameter (column 7 lines 30-53, any alteration to the previous configuration of the server instance causes the new server instance to differ in at least one parameter).

Regarding claims 6 and 28:

Gong discloses the method of claims 1 and 23, wherein a difference between said new server instance and said first server is responsive to whether or not other security incidents have been detected in a network to which said servers are coupled (column 7 lines 30-37, using the information it receives from the intrusion sensors, acceptance monitors, ballot monitors and proxy servers, the reconfigurer generates new configurations as necessary; column 5 line 60-column 6 line 6, the ballot monitors receive results of the applied acceptance test and determines a preferred response

based on the current level of detected security and the designated intrusion tolerance strategy).

Regarding claims 7 and 29:

Gong discloses the method of claims 1 and 23, wherein a difference between said new server instance and said first server is responsive to a nature of any other security incidents that have been detected in said network to which said servers are coupled (column 7 lines 30-37, the configurer receives information from intrusion sensors, acceptance monitors, ballot monitors, and proxy servers and generates new configurations as necessary).

Regarding claim 8:

Gong discloses the method of claim 1, wherein a difference between said new server instance and said first server is responsive to a probable compromise or a functional impairment observed in said detection (column 7 lines 46-53, the configurer is capable of reconfiguring the network connections in response to a predetermined condition to support a desired security level. This may be triggered by the intrusion sensor or set in advance if a hostile environment is anticipated (probable compromise)).

Regarding claim 13:

Gong discloses the method of claim 1, wherein a difference between said new server instance and said first server includes a degree of function offered to users by said servers (column 7 lines 30-43, configurer changes the level of access control imposed on clients).

Regarding claim 14 and 15:

Gong discloses the method of claim 1, wherein said new server instance brought up in said reprovisioning differs from said first server only if more than a fixed number of instances of probable server compromise have been observed and wherein a difference between said new server instance and said first server is responsive to a number of probable server compromises that have been observed (column 7 lines 30-37, based on the information received the reconfigurer generates new configurations for the system; it is inherent that there is at least one or more instances that cause a new configuration).

Regarding claim 16:

Gong discloses the method of claim 1, wherein said server comprises a computer providing services through a network (figure 1 and column 4 lines 6-10, the proxy servers represent public access points to clients via communication lines 4).

Regarding claim 17:

Gong discloses the method of claim 1, wherein said server comprises a program running on a network-coupled computer, providing services through a network (column 4 lines 6-10, services such as military command and control or a transaction processing system for an e-commerce site; it is inherent that servers are a computer consisting of a processor, volatile storage, and a non-volatile storage device).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong as applied to claim 1 above, and further in view of Agha.

Gong discloses the method of claim 1, but not teach the difference between said new server instance and said first server includes a version of operating system software used by said servers. Agha teaches updating program code wherein program code "generally includes the operating system of the computer system, as well as any lower-level program code utilized by the computer system, including microcode, basic input/output system (BIOS) program code, kernel program code, startup program code, etc" (Agha, column 1 lines 18-22). Changing strength of encryption would have been obvious to one of ordinary skill in the art in order to further protect the server's incoming and outgoing communications. It would have been obvious to one of ordinary skill in the art to combine the reprovisioning method of Gong with the method for updating program code of Agha in order to update the system (Agha, column 1 lines 6-9).

Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong as applied to claim 1 above, and further in view of Burnett.

Gong discloses the method of claim 1, but does not disclose selecting said new server instance from a plurality of new server configurations. Burnett discloses selecting a configuration from a configuration database, 135, in paragraph 0049. Using a table and randomly selecting the configuration are obvious variations of selecting the new server configuration and one of ordinary skill in the art could have used one over the other. Examiner interprets claim 22 as selecting from a table after a number of times a server has been subject to probable compromise (in the reference, the number

of times is equal to one). It would have been obvious to one of ordinary skill in the art to combine the method of Gong for reprovisioning a server with the configuration database of Burnett in order to store all of the configurations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Turchen whose telephone number is 571-270-1378. The examiner can normally be reached on MTWRF 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRT

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